

WE CLAIM:

1. A threaded joint for pipes, comprising a pin (1, 1', 1'') and a box (2, 2', 2''), each having, at at least one end, a respective threaded portion, in which said respective threaded portions are coated with a layer of dry lubricant having a thickness of between 5 μm and 30 μm and in which a nominal void volume (NVV) of the space (6, 7) between pin member and box member is sized so that the following formula is satisfied:

$$NVV[\text{cm}^3] \leq 4 \times OD[\text{inch}]$$

where OD is the nominal outer diameter of said pipes.

2. A threaded joint according to Claim 1, wherein the nominal empty volume NVV of the space (6, 7) is sized so that the following formula is satisfied:

$$\frac{NVV [\text{cm}^3]}{OD [\text{inch}] \times \sqrt{Wt [\text{mm}]}} \leq 1$$

where Wt is the thickness of the wall of said tubes.

3. A threaded joint according to Claim 2, wherein the area g_T of the free space (5, 6) between the threads engaged in the section of the joint considered on an axial plane is less than 0,4 mm^2/pitch .

4. A threaded joint according to Claim 1, wherein each of said male and female elements is provided with at least one seal element.

5. A threaded joint according to Claim 4, wherein the pin has two outer threaded portions (12, 13) having a frusto-conical shape, which are axially staggered and separated by a shoulder (9'), and the box has two inner threaded portions (10, 11) having a frusto-conical shape, which are axially staggered and separated by a shoulder (9''), which acts as a detent during screwing.

6. A threaded joint according to Claim 4, wherein the pin has an outer threaded portion of frusto/conical shape and the box has an inner threaded portion having a frusto/conical shape, and each of the pin and box members is provided with of a shoulder set at at least one respective end of the said threaded portions, adapted to act as abutment during making up.